DOCUMENT RESUME

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ABSTRACT

This document reproduces a filmstrip and accompanying narrative describing the Allied Health Learning Center at New York City Community College. Using a team of content faculty, specialists in learning methodology, and a media production staff, the Center serves 1,800 students and 180 faculty members in seven career departments. The primary goal of the Center is to facilitate the mastery of necessary learning skills in order to support and advance the instructional objectives within the career curricula. Diagnostic testing is provided and a comprehensive student data system has been developed. A Professional Learning Systems course was implemented to apply basic skills to a target freshman science course. In order to provide supplementary support to individual courses, the Center provides modules of instruction, multi-media aids, study group sessions and peer assistance in an open lab learning environment. Seminars are given to increase student proficiency in skills specifically related to licensure and certification examinations, and career information is disseminated. Faculty workshops and seminars are conducted to promote professional development. The continuous increase in student contact hours over a three year period indicates the effectiveness of the Center in meeting the needs of the diverse student population. (NHM)

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ED114136

FACILITATING THE LEARNING AND TEACHING PROCESS THROUGH AN ALLIED HEALTH LEARNING CENTER AT NEW YORK CITY COMMUNITY COLLEGE : A MULTI- MEDIA PRESENTATION

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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Presented at the Council of Associate Degree Programs, Regional Program Meeting in conjunction with the Annual Convention of the American Association of Community and Junior Colleges.

by
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and
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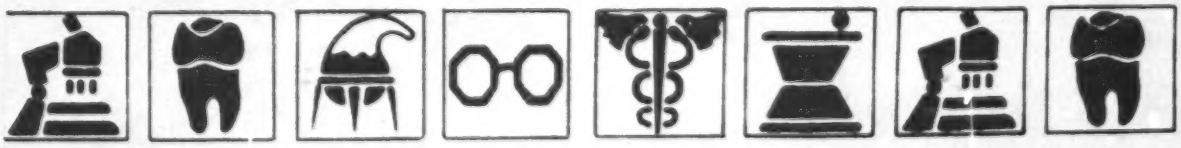

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With a commitment to meeting the needs of students with varying educational backgrounds, The City University of New York placed higher education within the grasp of all New York City High School graduates. This commitment entailed a major responsibility for aiding significant numbers of educationally disadvantaged students to enhance their chance for success as a result of these new opportunities.

(1)

September 1970 marks the implementation of the open admissions

(2)

NEW YORK CITY
OPEN ADMISSIONS
POLICY

SEPTEMBER 1970

In assessing the academic achievement of the entering freshman student by high school grade point average, figures indicate the radical change in the new population.

(3)

ENTERING STUDENTS NURSING DEPARTMENT
HIGH SCHOOL GRADE AVERAGE

YEAR	75% REC.	70-74.9 A	69.9 B
1969	98%	2%	
1970	54%	27%	19%
1971	56%	32%	13%
1972	—	50%	50%
1973	76%	20%	3%
1974	72.5%	19.5%	8%

U of P.C. Admits HIGH SCHOOL OR ABOVE 50th PERCENTILE RANK IN COLLEGE WHICH EVER IS IN THE BEST INTEREST OF THE STUDENT

When we take a look at the results of standardized tests and assess the students reading comprehension scores we find a range of reading grade levels from 5.8 to 15.

(4)

CG.P READING LEVEL
DIVISION OF ALLIED HEALTH

DEPARTMENT	1973		1979	
	RANGE	MEAN	RANGE	MEAN
CHEMISTRY	6.9-14.6	10.0	6.7-13.9	10.02
DENTAL LABORATORY	6.2-15	10.5	6.4-13.7	10.0
DENTAL HYGIENE	6.2-15	11.6	7.4-14.6	11.9
NURSING	7.0-14.6	10.0	5.9-13.9	9.9
OPHTHALMIC DISPENSING	7.0-14.6	11.0	6.7-13.9	10.7
RADIOLOGIC TECHNOLOGY	5.8-14.6	9.7	6.1-13.9	10.9
MEDICAL LABORATORY	6.2-15.0	10.6	6.7-15	10.9

Statistics indicate that our students are:

A. Most likely to come from a minority population, working and living in the college's immediate vicinity.

B. Most likely to have limited reading and study skills and most likely to have a high school grade point average of 70 - 75%.

(5)

A. MOST LIKELY TO COME FROM THE COLLEGE'S IMMEDIATE VICINITY IN BROOKLYN.

B. MOST LIKELY TO BE FROM A MINORITY GROUP, PRIMARILY BLACK AND PUERTO RICAN.

C. MOST LIKELY TO BE FROM A LOW SOCIO-ECONOMIC FAMILY.

D. MOST LIKELY STUDENT MUST WORK TO CONTINUE ATTENDING SCHOOL

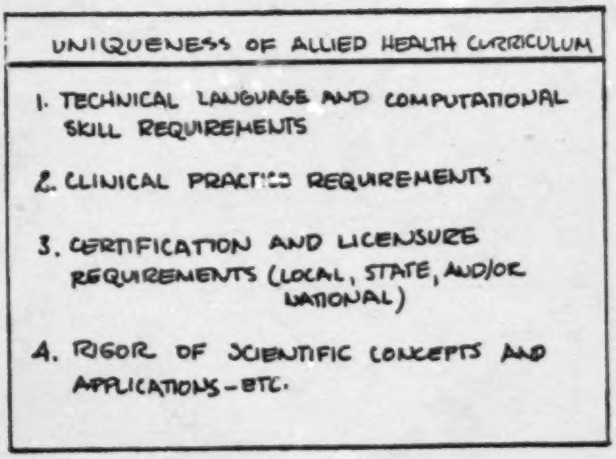
E. MOST LIKELY TO HAVE A GPA OF 70-75% OR IS IN THE UPPER 50% OF GRADUATING CLASS.

F. MOST LIKELY TO HAVE A READING LEVEL OF APPROXIMATELY 10TH GRADE.

This data must be evaluated in terms of the varying standards and the decreasing demands of the high school curriculum.

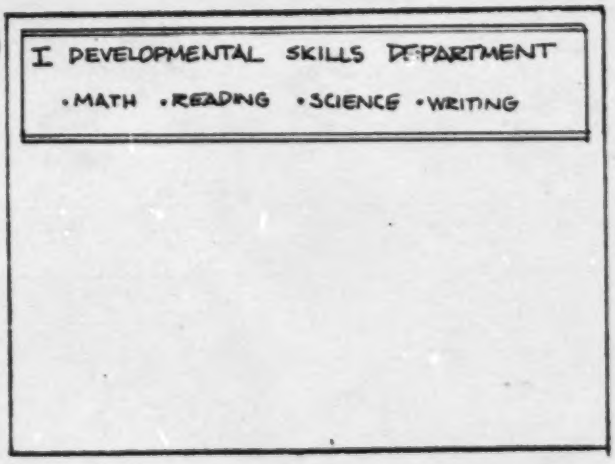
In addition we must recall that the Allied Health curricula have unique requirements as illustrated in figure 6.

6


UNIQUENESS OF ALLIED HEALTH CURRICULUM
1. TECHNICAL LANGUAGE AND COMPUTATIONAL SKILL REQUIREMENTS
2. CLINICAL PRACTICE REQUIREMENTS
3. CERTIFICATION AND LICENSURE REQUIREMENTS (LOCAL, STATE, AND/OR NATIONAL)
4. RIGOR OF SCIENTIFIC CONCEPTS AND APPLICATIONS - ETC.

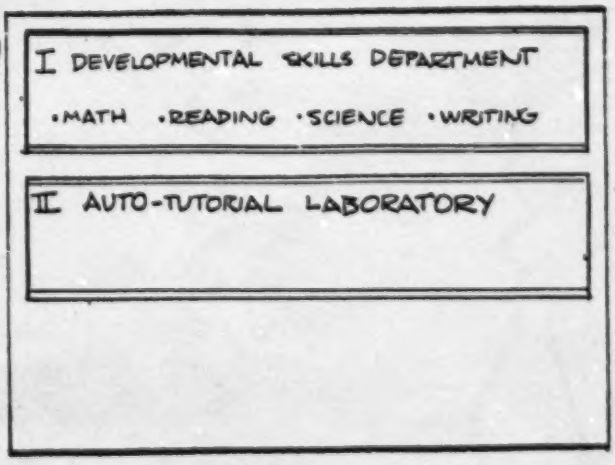
Initially the college established a Developmental Skills Department for the teaching of reading, writing and mathematical skills to students who were identified through testing, as those needing remediation in generalized basic skills.

7



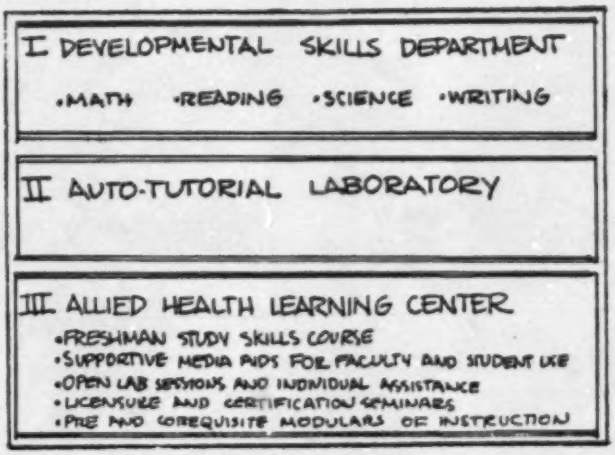
Also an Auto-Tutorial Laboratory was initiated with the purpose of helping students deal with clinical techniques and life science subject matter.

8

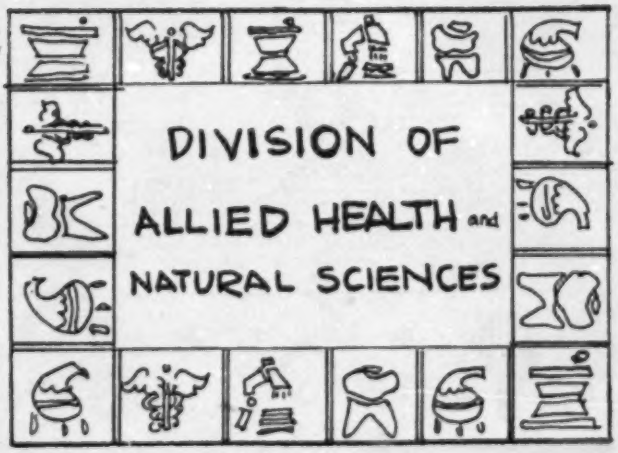


A proposal was written to obtain funds to implement what we today identify as The Allied Health Learning Center.

(9)

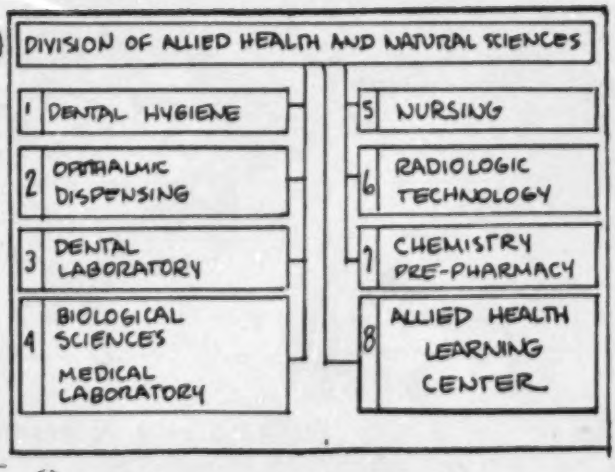

I DEVELOPMENTAL SKILLS DEPARTMENT
•MATH •READING •SCIENCE •WRITING
II AUTO-TUTORIAL LABORATORY
III ALLIED HEALTH LEARNING CENTER
•FRESHMAN STUDY SKILLS COURSE
•SUPPORTIVE MEDIA AIDS FOR FACULTY AND STUDENT USE
•OPEN LAB SESSIONS AND INDIVIDUAL ASSISTANCE
•LICENSURE AND CERTIFICATION SEMINARS
•PRE AND COREQUISITE MODULARS OF INSTRUCTION

(10)

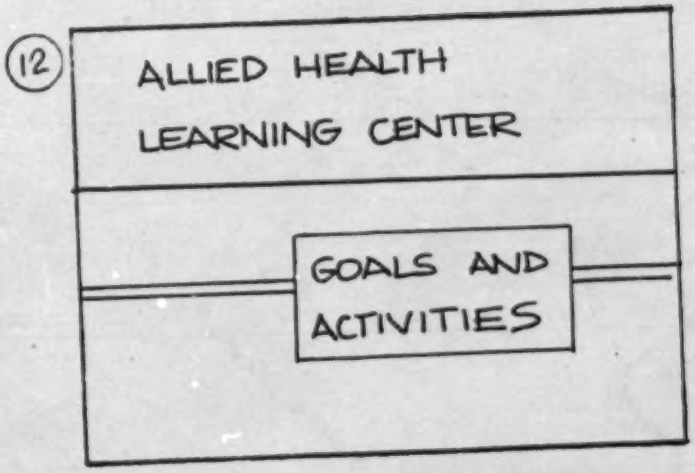


The Allied Health Learning Center represents a comprehensive network system designed to facilitate student learning in these seven (7) career departments within the Division of Allied Health. The center serves approximately 1800 students and 180 faculty members. The center utilizes a team of content faculty, specialists in learning methodology and a media production staff. Adjunct personnel are associated with the center on a regular basis and student tutors are utilized in a number of ways.

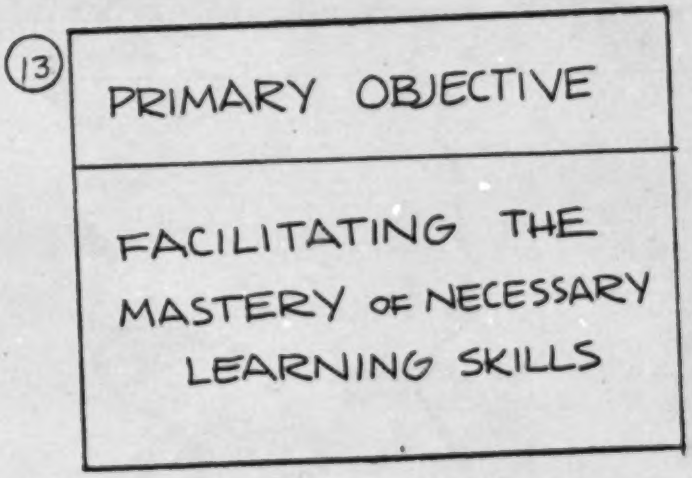
(11)



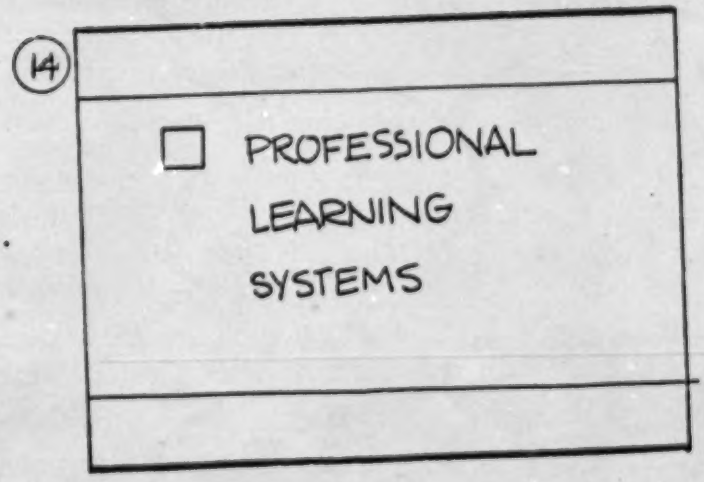
Initially we'll do a brief overview of the objectives and activities designed to meet the needs of the students and faculty within the division.



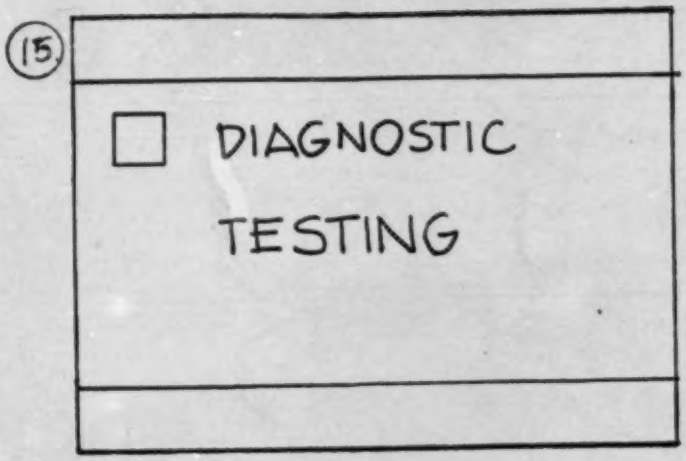
Objective I
The primary goal of the Learning Center is to develop strategies applying specific techniques, methods and materials to support and advance the instructional objectives within the seven career curricula.



Objective II
To develop reading and study skills for Allied Health Students, a Professional Learning Systems course was implemented which applies basic competency skills to a target freshman science course.

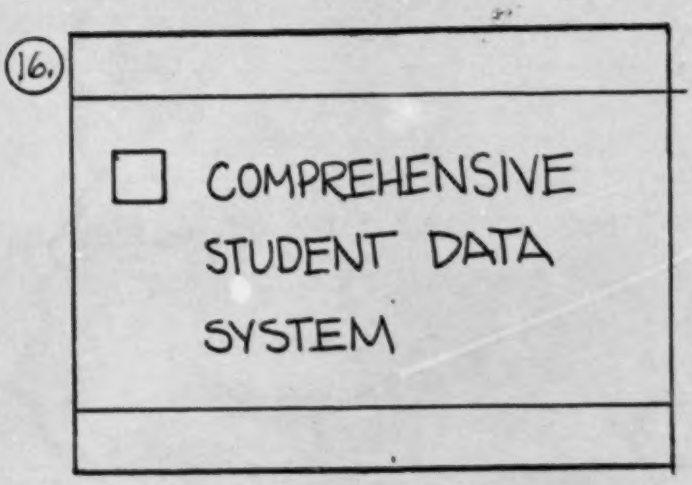


To provide early appraisal of student strengths and weaknesses, diagnostic testing is administrated. Supportive learning activities based on these results, may be instituted at appropriate levels of the student's course of study.



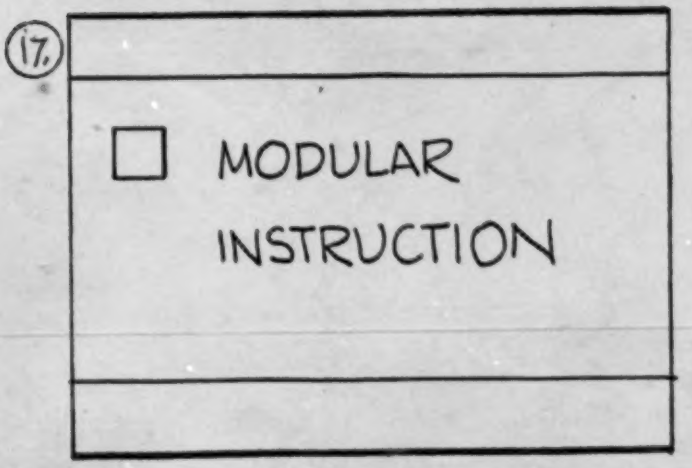
Objective III

To develop a comprehensive data system for each student which records placement and progress information within each department and compiles post-graduation statistics.

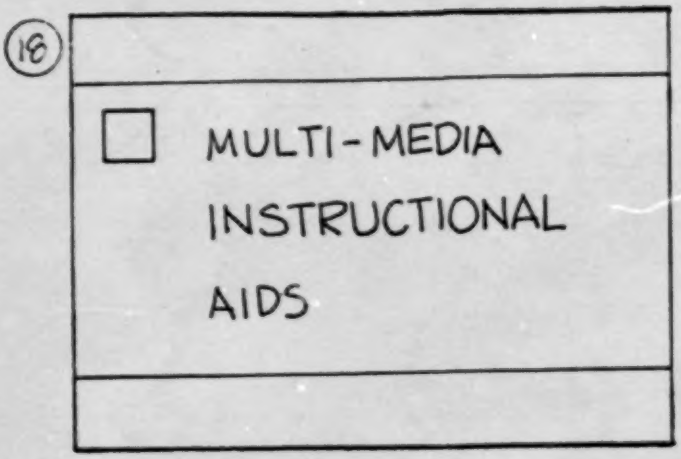


Objective IV

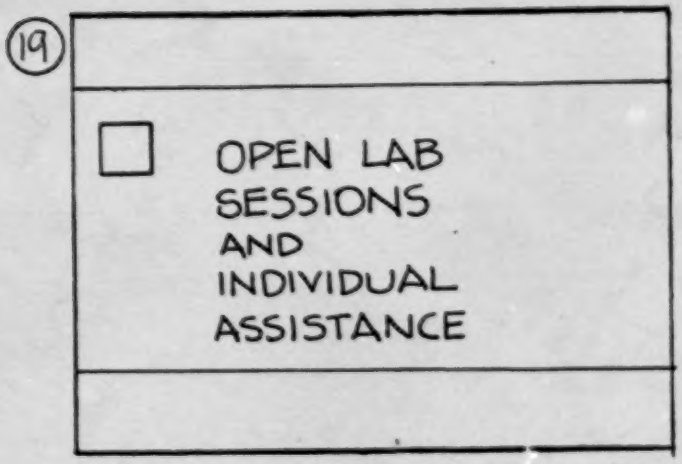
To provide prerequisite and corequisite modules of instruction which offer supplementary support for a course of study.



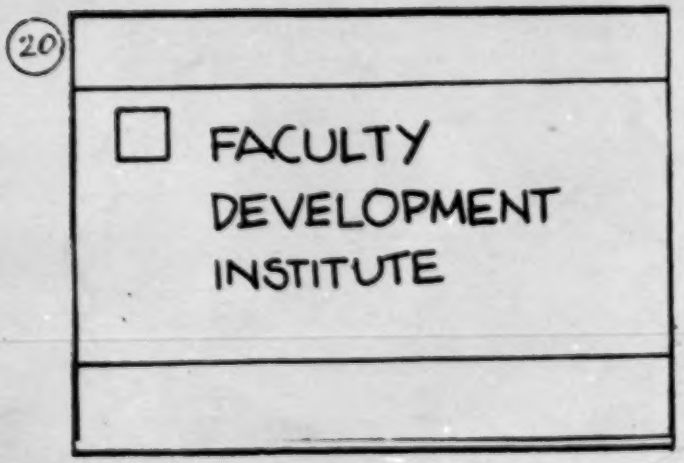
Objective V
To develop multi-media aids for teacher use which reinforce technical learning. To edit and up-date existing media within the division in order to reflect current information and technical accuracy.



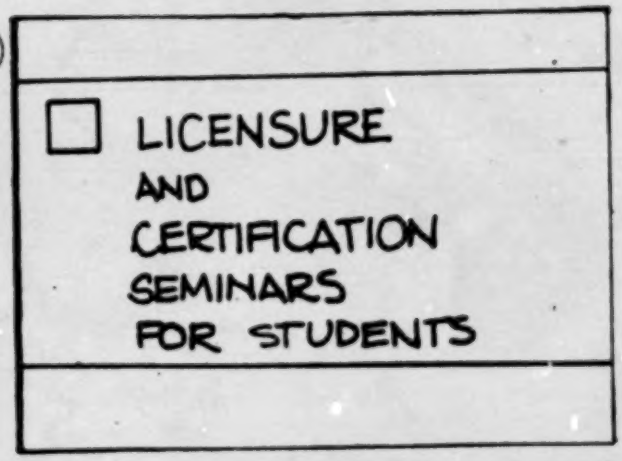
Objective VI
To decrease student attrition by providing study group sessions and peer assistance in a non-stigmatized open lab learning environment.



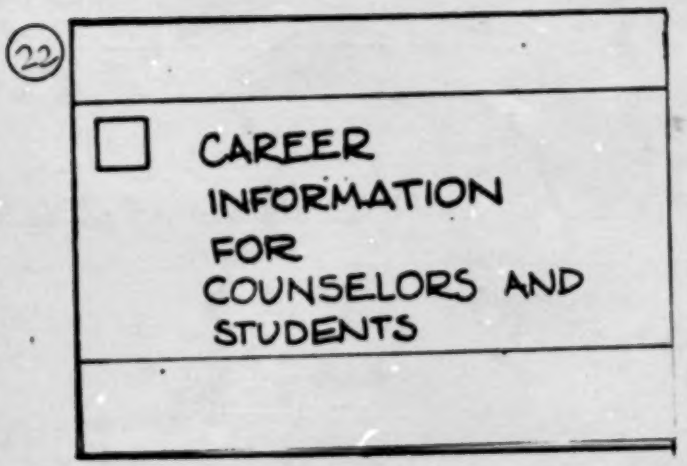
Objective VII
To conduct faculty workshops and seminars in order to develop awareness of new learning methodology, techniques and materials.



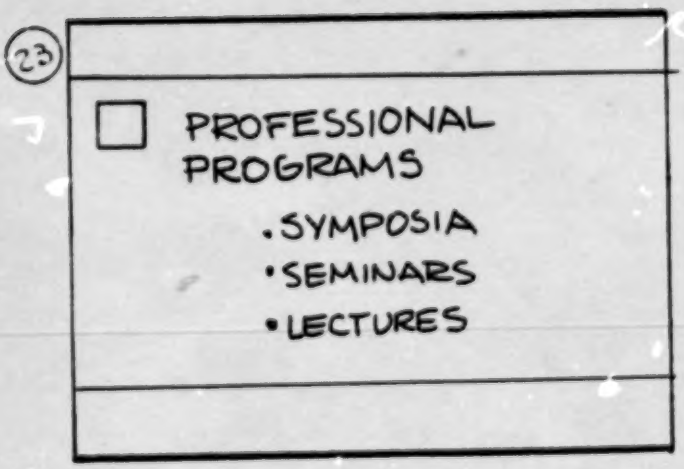
Objective VIII
To provide students in the Allied Health Career programs with seminars in order to increase their proficiency in those skills specifically related to Licensure and Certification examinations.



Objective IX
To disseminate accurate career information concerning specific departmental requirements and career opportunities..



Objective X
To promote professional programs of interest and concern to all Allied Health faculty through symposia, seminars and lectures.



Let us examine each of these major objectives in greater detail.

The Professional Learning Skills program which is designed to develop mastery in the basic skills necessary for survival in the career curricula is structured as follows:
There are 3 components-

1. Effective Reading.
2. Study Techniques for Science Curricula.
3. Mathematical applications for Allied Health Careers.

There are two formats:

1. Group based initial instruction in each of the learning skills.
2. Open Lab - individually on development of specific skills.

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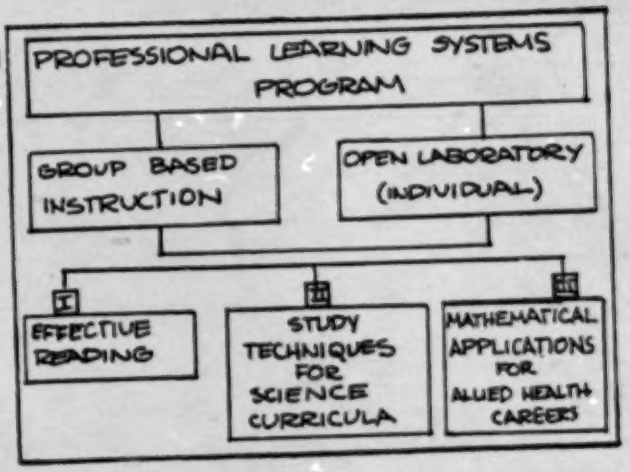

Proficiency tests have been prepared. Performance on these tests are the basis for referring those students for required follow-up activities on an individual prescriptive basis. These activities which reinforce specific skills are provided from 9-5 in an open lab facility.

25

The first topic in the freshman study skills course is entitled "Flexibility of Reading Rate" which focuses on more efficient reading rates with a minimum of 70% comprehension. Reading passages are taken from the nursing student's textbooks and professional journals. These passages are used in conjunction with a reading accelerator which paces the student's reading rate.

(26)

There are 10 comprehension questions dealing with a range of reading skills such as:

1. Main Idea
2. Supporting detail
3. Drawing Conclusions
4. Vocabulary in context

(27)

DIAGNOSTIC CHART

STUDENT _____

SCIENCE READING PASSAGES		1	2	3	4	5	6	7	8	9	10
CATEGORIES OF COMPREHENSION SKILLS											
1	MAIN IDEAS										
2	SUPPORTING DETAILS										
3	DRAWING CONCLUSIONS / MAKING INFERENCES										
4.	VOCABULARY IN CONTEXT										

Here a teacher is diagnosing responses which have been keyed to indicate the students strenths and weaknesses.

(28)

After reading a passage, which is timed, the student corrects his answers which are keyed to indicate the type of question missed. This serves as a diagnostic tool. The student then charts his progress on the graph. Based on the results, a judgment is made as to the appropriate rate for the next passage.

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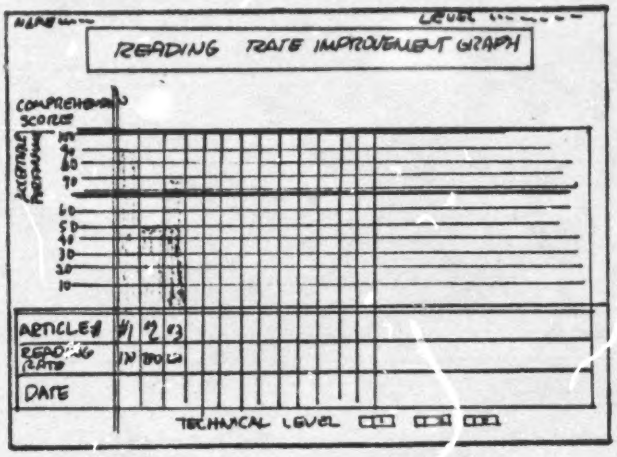

This program, too, is conducted in an open lab format form 9-5 which permits an unlimited schedule to accommodate student preferred time.

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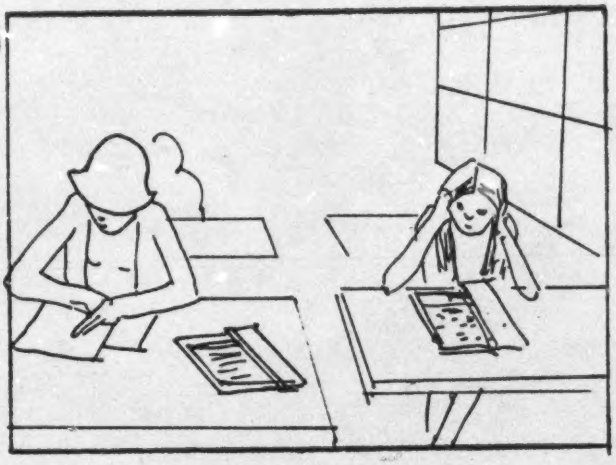


The second component of the Professional Learning Systems Course focuses on the application of study techniques in a science curricula.
P.Q.R.S.T. - is a mnemonic for an organized approach to assigned textbook reading which aids recall of study material

31.

PROFESSIONAL LEARNING SYSTEMS

CURRICULUM

P.Q.R.S.T.

(32) ☐ TEXTBOOK NOTEMAKING

☐ LECTURE NOTETAKING

Techniques for effective text book notemaking are applied to specific nursing passages detailing methods for highlighting main ideas, supporting detail and identifying new vocabulary in context.

To teach the skill of taking lecture notes, actual tapes of instructor's lectures are used to provide practice patterns such as comparison-contrast, cause-effect, time order and sequenced events are illustrated.

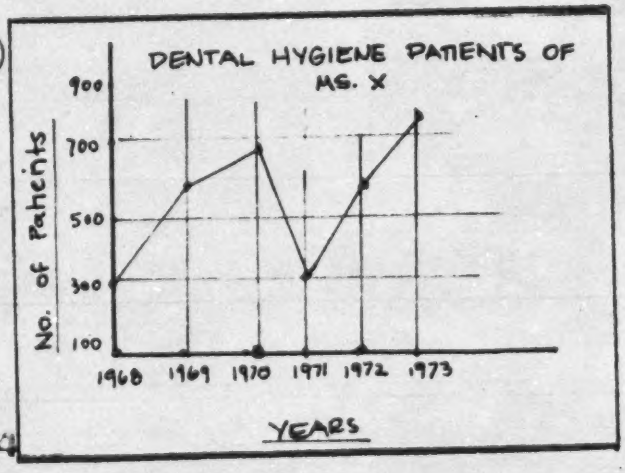
(33) ☐ SCIENCE VOCABULARY DEVELOPMENT

☐ TEST-TAKING TECHNIQUES

The development of specific technical vocabulary is treated in much the same way as learning a new language. Cassettes with accompanying manuals have been produced which afford the opportunity for students to hear, respond and see the word in context. Pronunciation guides and supportive graphics reinforce the learning.

Test taking techniques, which are critical to a student's success in completing his career program, are simulated to reduce "test-panic," by developing an increased awareness of question formats and psychological aspects of test taking.

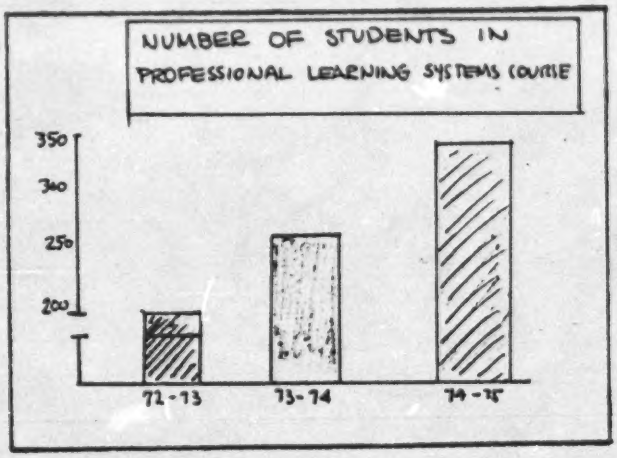
(34)



The academic and clinical experience of the Allied Health student mandates the development of skills in the interpretation of biostatistical data. Exercises drawn from various scientific sources are used to instruct the student in the location of factual information from charts, graphs, etc. In addition, students construct graphs taken from raw data.

The effectiveness of the Professional Learning System Program may be observed by the increased participation of the students and the continued support of the faculty. Each department has implemented procedures for registering students for scheduled classes. Increased student participation form the initial phase 1972 to the current academic year 1974 is illustrated.

35



A committe composed of nursing faculty and Allied Health Learning Center Staff reviews high school performance and results on standardized tests in relation to admission criteria. Those who meet admission criteria are programmed immediately into a regular nursing course of study. Other students are appropriately placed into remedial courses in reading, writing and mathematics.

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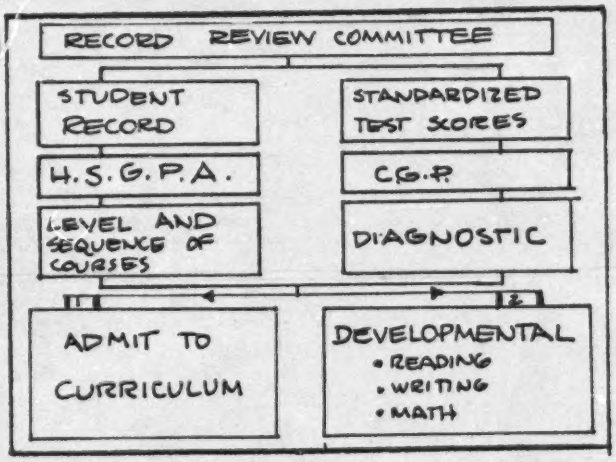

Currently, we are implementing procedures for recording data related to admission and progress within the Nursing Department through our college computer facility. It is intended that this comprehensive data system will provide continuous retrieval of information focusing on the following categories illustrated in 35.

(37)

COMPREHENSIVE STUDENT DATA SYSTEM

I BASIC CLASSIFICATION VARIABLES

II DEMOGRAPHIC VARIABLES

III INTELLECTIVE VARIABLES

IV PERCEPTUAL - ATTITUDINAL VARIABLES

Another major support activity at the center is to provide sequential modules for supplementary support of content curricula.

A library of instructional modules is available at the Center which has been prepared by the department content faculty in cooperation with the Allied Health Learning Center Staff. These multi-media units serve to develop enabling skills or to offer student support in parallel course content.

(38)

TO PROVIDE SEQUENTIAL MODULES OF INSTRUCTION

- SUPPLEMENTARY SUPPORT FOR CONTENT CURRICULA
- COORDINATED WITH COURSE SYLLABY

Multi-media modules are housed in these plastic boxes and contain pre and post tests, audio and/or video presentations that explain a concept or principle with appropriate media, e.g., slides, models, graphics.

Let us discuss an example of a pre-requisite modular of instruction.

Many of our nursing teachers have based their instruction predicated on the belief that a year of high school biology, a pre-requisite requirement, brings with it a skill in the use and care of a microscope. Sadly enough, this has proven to be an unrealistic assumption for most of the students taking a freshman science nursing course, e.g., Microbiology.

Two video tapes have been prepared:

1. "Parts of The Microscope"
2. "Use and Care of The Microscope"

39

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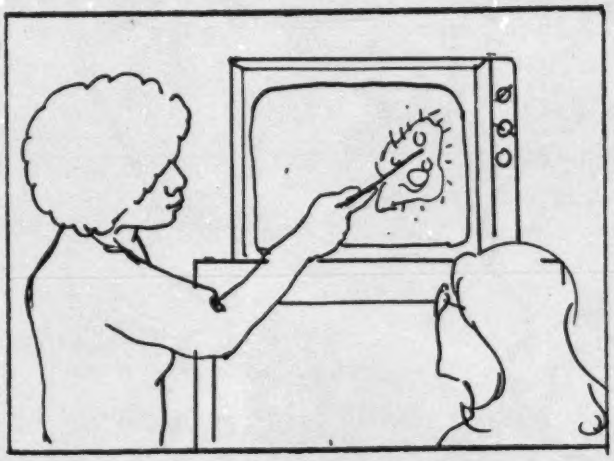

The first tape focuses on the names and functions of critical parts of the microscope. The student takes a pretest in which 90% proficiency is required.

If the student has not demonstrated a sufficient knowledge, she turns on the video tape, follows exercises and worksheets, and takes a post test.

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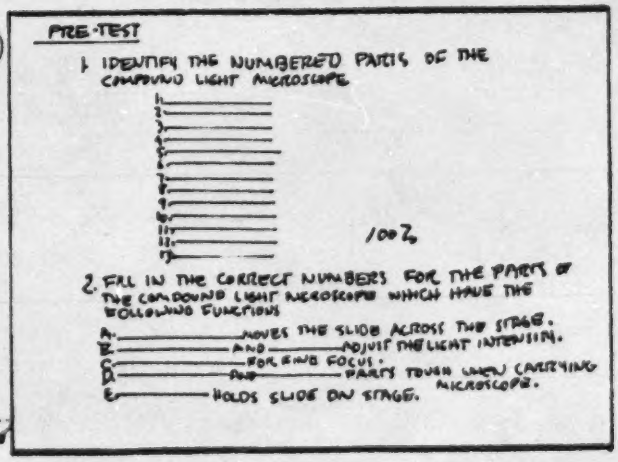

PRE-TEST
1. IDENTIFY THE NUMBERED PARTS OF THE COMPOUND LIGHT MICROSCOPE
100%
2. FILL IN THE CORRECT NUMBERS FOR THE PARTS OF THE COMPOUND LIGHT MICROSCOPE WHICH HAVE THE FOLLOWING FUNCTIONS
A. MOVES THE SLIDE ACROSS THE STAGE.
B. AND ADJUST THE LIGHT INTENSITY.
C. FOR FINE FOCUS.
D. AND PARTS TOUCH WHEN CARRYING MICROSCOPE.
E. HOLDS SLIDE ON STAGE.

The student proceeds to take a pre-test for the 2nd module which deals with the"Use and Care of the Microscope." Failing to demonstrate a pre-determined level of competency, the student follows a prescribed course of activities using the microscope until she can complete the assigned tasks in the post test. the test actually measures the student's ability to properly focus and identify specimens under low power, high power and oil immersion. Figure 50 illustrates the format for the post-test.

(42)

USE OF COMPOUND LIGHT MICROSCOPE

1. DRAW A FEW CELLS FROM SLIDE "A" AS SEEN UNDER LOW MAGNIFICATION.

2. WHAT COLOR ARE THE CELLS IN SLIDE "A". _____

3. WHAT SHAPE ARE THE CELLS IN SLIDE "A". _____

4. DRAW A FEW CELLS FROM SLIDE "B" AS SEEN UNDER THE OIL IMMERSION OBJECTIVE LENS.

5. WHAT COLOR ARE THE CELLS IN SLIDE "B" _____

6. WHAT SHAPE ARE THE CELLS IN SLIDE "B" _____

Available at the center are personnel and equipment to edit, up-date and develop instructional aids for: 1. Use in the classroom
2. Open lab:
   a) For individual study
   b) For small groups
   c) With the assistance of tutor.

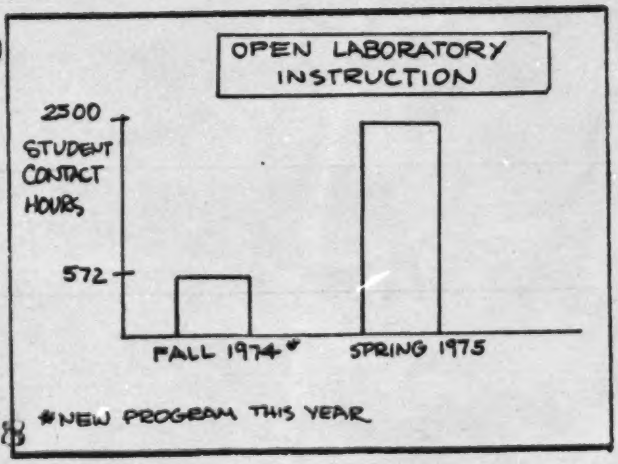
(43)

TO DEVELOP SUPPORTIVE MEDIA AIDS

- MULTI-MEDIA MATERIALS

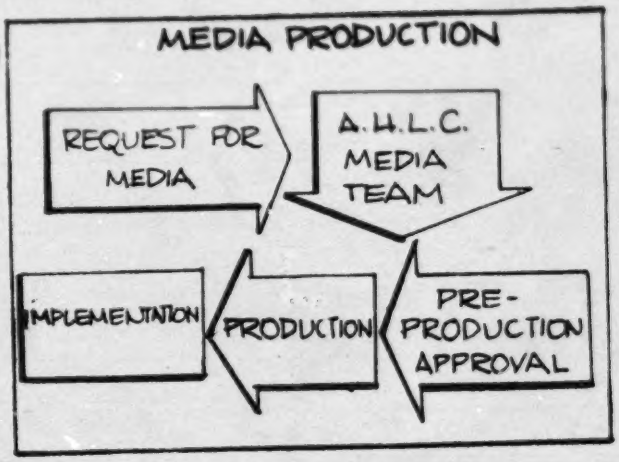
This indicates the impact of open lab instruction within the past academic year. During Fall 74 there were 572 student contact hours. With one month to go in the spring semester, projections are that the contact hours will reach approximately 2500 hours.

(44)



This schematic indicates the procedures followed for implementing the development of media. The request is initiated from a faculty member.

(45)



After discussing factors of time, monies and facilities with the coordinator of the center, the learning center media team designs and prepares materials for production. The project is re-submitted for preproduction approval by initiating content faculty.

The media project is then produced and the materials are implemented in the classroom and the center.

(46)

Our media capabilities include:

1. A T.V. studio with play back facilities.

2. A sound recording room room with the ability for multi-duplication of audio tapes.

(47)

3. Photographic copying of illustrations.

4. Facilities for on-site photography or video-taping of clinical procedures and classroom activities.

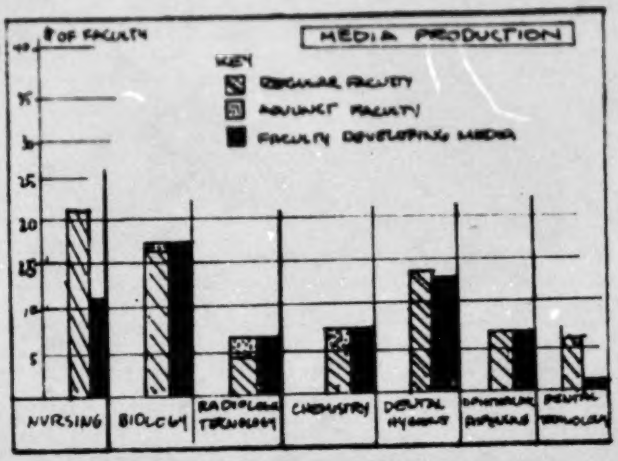
(48)

5. A graphic artist assists our faculty in developing visual material such as slides, charts, overhead transparencies and video storyboards.

(49)

This chart illustrates the active participation of faculty in developing media. The shaded area indicates the number of faculty involved in utilizing this service. Full-time faculty are more actively involved in using this facility than adjunct faculty.

50



We are anxious for our students to become independent learners. The Learning Center provides study question guides and seminar sessions for students enrolled in key Allied Health courses. This encourages students of all abilities to utilize the facilities and services on an individual basis.

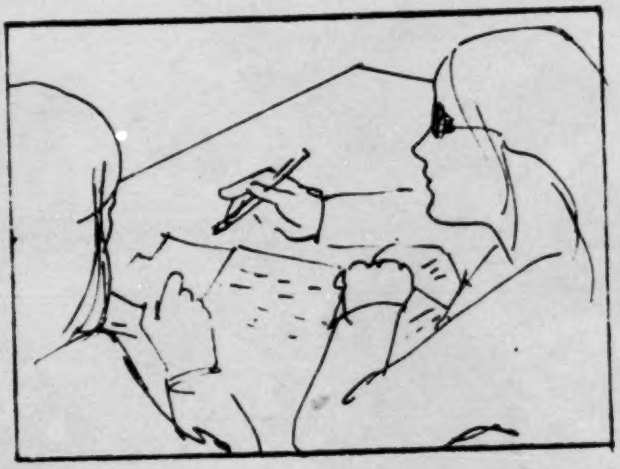
51

TO PROVIDE STUDY GROUP SESSIONS AN PEER ASSISTANCE

- INDIVIDUAL TUTORING
- SMALL GROUP SEMINARS

The effectiveness of tutoring on a 1:1 basis . . . .

52

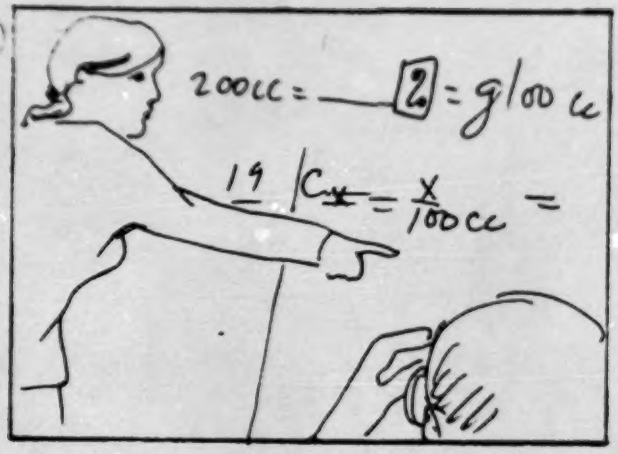


And small seminar groups utilizing contact support material . . . .

53

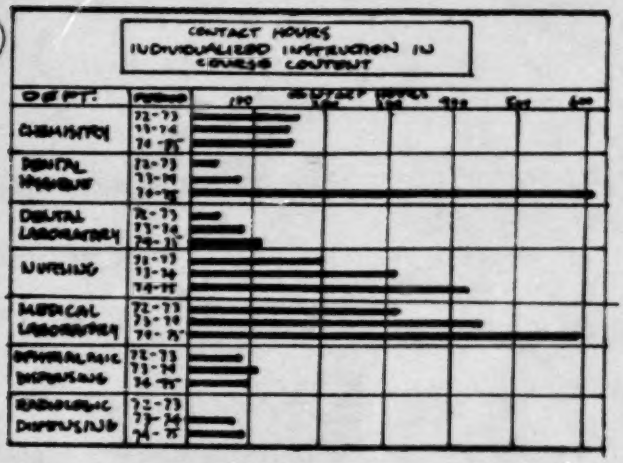
Is indicated by the increasing use of this activity by the students.

54



This chart indicates (for 3 year period) the continuous increase in the contact hours with students in each of the career departments.

55



We view certification as the culminating goal of the nursing curriculum. In response to the difficulties our students have demonstrated, we have scheduled seminars for our graduating students.

56

TO PROVIDE SEMINARS FOR LICENSURE AND CERTIFICATION EXAMINATIONS

This intensive content review is provided directly before each examination.

A concentrated review between semesters was found to be the preferred effective method by the students. This schedule indicates the intensive review in a 5 week period covering, I am sure, some very familiar topics to you.

57

CERTIFICATION SEMINARS

DECEMBER SUBJECT:	OBSTETRICS	5 SESSIONS TOTAL 10 HRS 2 HOURS EACH
JANUARY FIRST WEEK SUBJECT:	PEDIATRICS	5 SESSIONS TOTAL 10 HR 2 HOURS EACH
SECOND WEEK SUBJECT:	MEDICINE	5 SESSIONS TOTAL 10 HRS 2 HOURS EACH
THIRD WEEK SUBJECT:	SURGERY	5 SESSIONS TOTAL 10 HRS 2 HOURS EACH
FOURTH WEEK SUBJECT:	PSYCHIATRY	5 SESSIONS TOTAL 10 HRS 2 HRS EACH

Faculty workshops and seminars are conducted to increase awareness of new techniques, methods and materials . . . .

58

TO INCREASE AWARENESS OF NEW TECHNIQUES METHODS AND MATERIALS

- STAFF DEVELOPMENT

In a cooperative effort to meet the needs of the diverse student population in the Division of Allied Health,

59

a Faculty Development Institute offers sessions in the following areas:

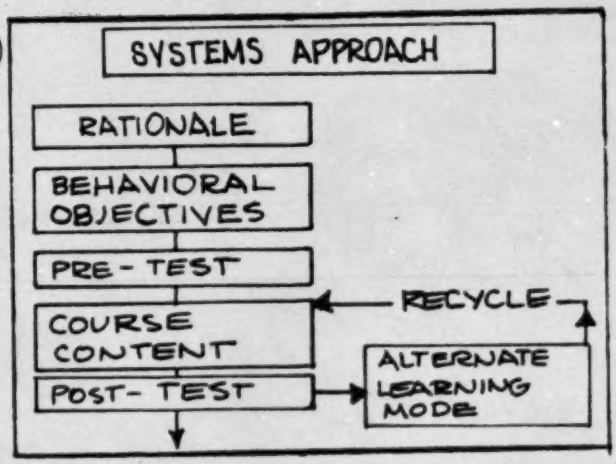
(60)

FACULTY DEVELOPMENT INSTITUTE

I. Development of the lesson plan through a systems approach to teaching which includes components you see on this chart.

Rationale:
a) Which discusses the importance of the unit of instruction
b) Indentifying the objectives
c) Selecting the best educational experiences for the learning activity
d) Pre and Post testing
e) Providing additional activities to reinforce learning.

(61)



II. Another workshop session focused on:
Writing instructional objectives which:

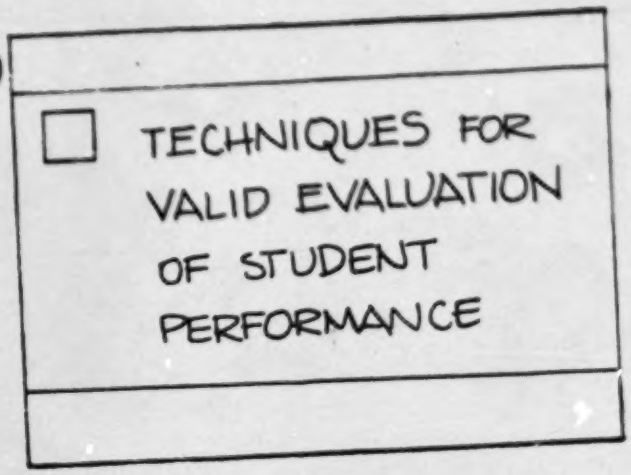
a) Identify the observable required performance as evidence for learning
b) Set the criteria for evaluation.

(62)

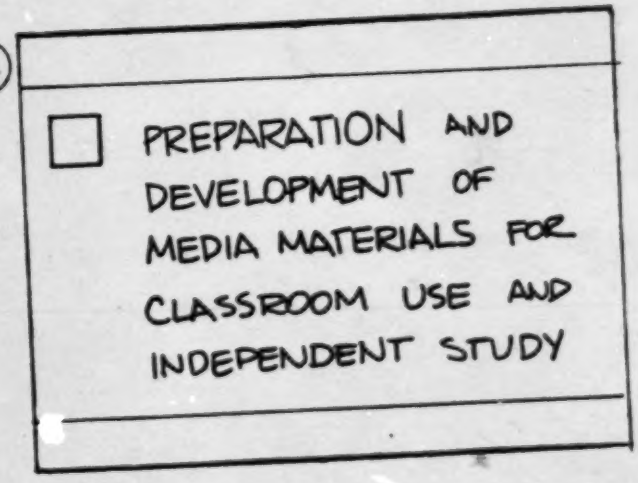
☐ WRITING INSTRUCTIONAL OBJECTIVES

III. Techniques for Valid Evaluation of Student Performance workshop detailed procedures for determining:

a) Item analysis, discrimination and difficulty indices
b) Criterion referenced vs. norm-referenced tests
c) Crucial objectives for both cognitive psychomatic performance.

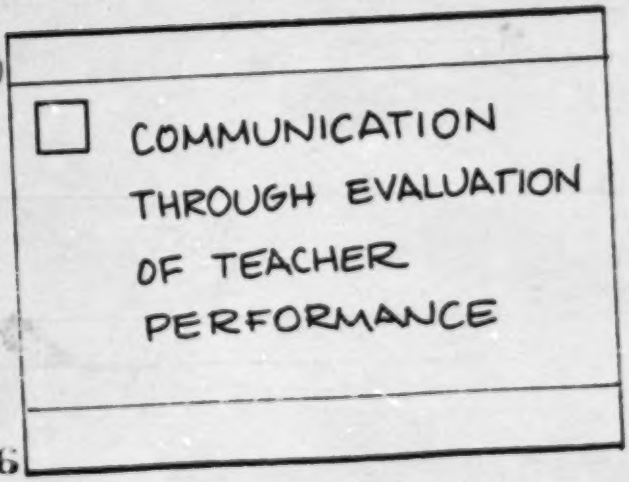


IV. Preparation and Development of Media Materials for Classroom and Independent Use workshop included: Sessions for demonstrating hands-on application of use of equipment and materials.



V. The workshop on Communication Through Evaluation of Teacher Performance Utilized the Technique of Video-micro Teaching.

Though teaching skills vary from one instructor to another, certain fundamental characteristics of lesson presentations are common to all effective teaching - this workshop involves methods of presentation, questioning techniques and classroom management techniques.



Attention is focused in this workshop on reading and study skills and their application to a specific instructor's course of study.

Procedures for determining reading grade levels of textbooks and supplemental readings were discussed. This provides the teacher with some guides for selection of appropriate reference materials to meet diverse student aptitudes and abilities.

66

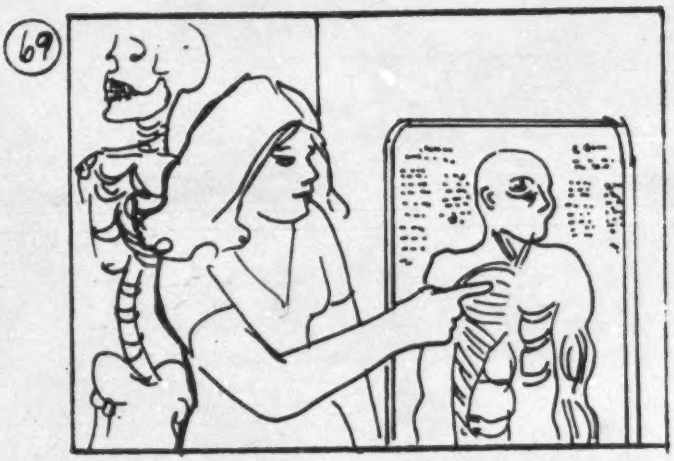
☐ APPLICATION OF READING AND STUDY SKILLS TO SCIENCE CURRICULA

The Learning Center attempts to meet the varied needs of faculty and students within the Division of Allied Health by supporting the instructional objectives throughout the 2-year curriculum. Evidence indicates that the activities of the Center have proven effective in creating an impact within the Division of Allied Health which has resulted in the acceptance and utilization of activities and services to facilitate student learning.

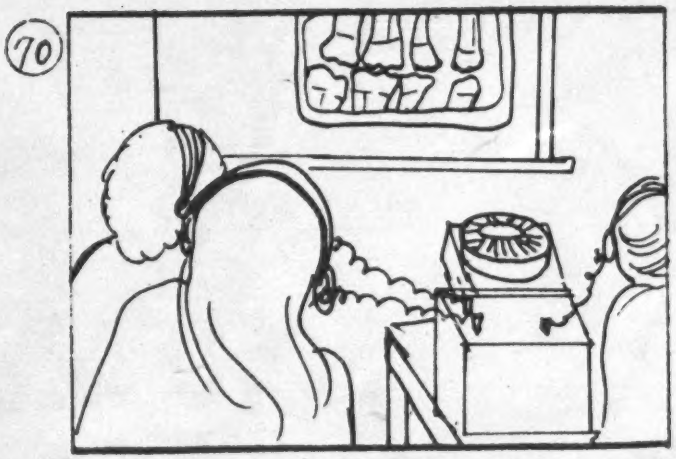
67

Students have the opportunity to be tutored on a 1:1 basis or in small group sessions.

The Center has a large collection of models, charts, and hands-on instructional materials.



Special group projects are developed to meet curriculum needs.



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